constant until the 1st February. On this and the following day the window of the room was left open at night, the temperature of the water had fallen in the morning nearly to 32° F., and the two oscular tubes had completely disappeared on the morning of the third day. But within a day, the window having been again closed, the oscula reappeared at the same place and again showed the same size. Besides these the sponge has now a third excurrent orifice. This *Spongilla* has also become smaller since it was brought from Tegel; it measured originally 10 centim. in length and nearly 5 millim. in the thickness of its crust; its length is now only 9 centim., with a thickness of $2\frac{1}{2}$ millim. At one place the spicular web, deprived of its soft parts, lies upon the parenchyma of the sponge; on all the rest of the surface we can indeed with the lens see the points of the spicules projecting, but almost everywhere the outer membrane may be seen closely applied to the sponge. In other respects the *Spongilla* presents a perfectly fresh appearance and emits from all the three oscular apertures a quick current of water. Upon the alteration of the soft-body of *Ephydatia fluviatilis* after the time of reproduction and until its recurrence in the following year I shall report in another place. Only this may be stated, that, in opposition to the statements of Lieberkühn and Metschnikoff, neither the dermis nor the excurrent tubes, nor the flagellate chambers and canals, completely disappear in the perennial sponges of the Tegelsee.

From this experiment in keeping alive a decidedly female *Spongilla* for nearly four months after the issue of the last larva it certainly follows that the notion of Laurent and Götte as to the death of the *Spongillæ* in consequence of sexual reproduction is not correct in all cases. On the other hand, I agree perfectly with Götte that in *Ephydatia fluviatilis* "there can be no question of a decided seasonal difference, or of a true alternation of generations," such as occurs, according to Marshall, in *Spongilla lacustris*.

XLII.—*Descriptions of new Reptiles and Batrachians obtained by Mr. H. O. Forbes in New Guinea.* By G. A. Boulenger.

Lygosoma Forbesii.

Section *Homolepida*. Body rather elongate, limbs short;

the distance between the end of the snout and the fore limb is contained once and a half in the distance between axilla and groin. Snout very short, obtusely acuminate. Lower eyelid scaly. Nostril pierced in a single nasal; no supranasal; præfrontal much broader than long, forming a suture with the rostral and with the frontal; latter shield as long as the distinct frontoparietals, not larger than the interparietal; parietals forming a median suture posteriorly; four pairs of enlarged nuchals; first upper labial largest, fourth below the centre of the eye. Ear-opening circular, a little smaller than the eye-opening, without projecting lobules. Twenty-six smooth scales round the middle of the body, those of the two vertebral series transversely enlarged. A pair of enlarged præanals. Limbs widely separated when adpressed; hind limb as long as the distance between the commissure of the mouth and the fore limb. Digits very short; fourth toe longer than third; subdigital lamellæ smooth, ten under the fourth toe. Tail thick. Brown above, closely spotted with black on the back and lineolated on the sides; yellowish inferiorly, throat with small black spots.

	millim.
Total length (tail reproduced)	88
Head	9
Width of head	5·5
Body	32
Fore limb	6
Hind limb	9

Camp of Sogere, in interior, 1750 feet above sea. A single specimen.

Typhlops inornatus.

Body moderately elongate, of subequal diameter throughout. Snout depressed, rounded. Nasal completely divided by a suture, which touches the second labial; a præocular, larger than the ocular; latter shield not touching any of the labials; eye just distinguishable, under the ocular; rostral rounded posteriorly, its length, as seen from above, nearly equal to its width; three scales on a transverse line between the oculars. Twenty scales round the middle of the body. Tail a little longer than broad at the base, ending in a spine. Uniform black; borders of mouth and end of tail yellowish.

Total length 170 millim.; diameter of body 4; length of tail 5.

Camp of Sogere. A single specimen.

Rana macroscelis.

Allied to *Rana Guppyi*. Vomerine teeth in two short oblique series on a level with the hinder edge of the choanæ, which are large. Head large, subtriangular; canthus rostralis distinct; loreal region deeply concave; eye large; interorbital space narrower than the upper eyelid; tympanum very distinct, circular, two thirds or three fifths the diameter of the eye. Fingers moderate, the tips dilated into small but very distinct disks, first extending beyond second; toes webbed to the disks, which are small; subarticular tubercles large, elliptic; a single, feebly prominent, elliptic metatarsal tubercle. The hind limb being stretched forwards along the body, the tibio-tarsal articulation reaches the tip of the snout. Upper surfaces minutely warty or granulate, the granules largest on the sides of the head; a short glandular fold above the tympanum. Dark olive-brown above, with some light spots around the upper lip and along the canthi rostrales; lower parts whitish, throat largely spotted or marbled with black.

From snout to vent 140 millim.

Camp of Sogere. Several female specimens.

Callulops, g. n. (*Engystomatidarum*).

Pupil erect. Tongue oblong, entire, slightly free behind and on the sides. Palatine bones forming an acute ridge across the palate, armed with a series of small teeth. A cutaneous denticulated ridge across the palate, in front of the œsophagus. Tympanum distinct. Fingers and toes free, tips swollen into small disks. Outer metatarsals united. Distal phalanges simple. No precoracoids; no omosternum; sternum cartilaginous. Diapophyses of sacral vertebra feebly dilated.

Intermediate between *Callula* and *Xenobatrachus*.

Callulops Doriæ.

Head rather small, much broader than long, convex on the frontal and occipital region; eyes small; no canthus rostralis; interorbital space much broader than the upper eyelid; tympanum much larger than the eye. First and second fingers equal; toes moderately elongate; inner metatarsal tubercle indistinct; tibia two fifths the length of head and body. The tibio-tarsal articulation reaches the shoulder. Skin smooth,

thick and leathery on the back. Brown (coloration badly preserved); groin and sides of hind limb yellowish, with a wide-meshed blackish network.

From snout to vent 75 millim.

A single female specimen. Milne Gulf.

Named in honour of the Marquis Giacomo Doria, who has so largely contributed to our knowledge of Papuasian herpetology.

XLIII.—*On the Characters of the Chelonian Families* Pelomedusidæ *and* Chelydidæ. By G. A. Boulenger.

There is probably not in the whole classification of Reptiles a more natural division than that of the typical Chelonians (*i. e.* excluding the Athecæ and Trionychoidea) into Cryptodira and Pleurodira. In addition to the two well-known characters, viz. the lateral bending of the neck and the anchylosis of the pelvis, the latter group differs in the following points:—

The mandible articulates with the skull by a condyle fitting into a concavity of the quadrate; the outer border of the tympanic cavity is completely encircled by the quadrate; the pterygoids are extremely broad throughout and form wing-like lateral expansions; the cervical vertebræ have strong transverse processes, and their cup-and-ball articulations are single throughout.

The existing Pleurodira may be divided into three families:—1. Pelomedusidæ (=Pelomedusidæ + Peltocephalidæ, Gray); 2. Chelydidæ (=Chelydidæ + Hydraspididæ, Gray); 3. Carettochelydidæ *. The latter family, characterized by the absence of dermal shields on the shell and the paddle-shaped limbs, is at present known from external characters only, but is apparently closely related to the Chelydidæ. Considering how widely the first two families differ, it is surprising that their recognition should have been delayed

* [I have asked Mr. Boulenger, who for some time past has been engaged in the study and arrangement of Chelonians, to publish this note in the 'Annals,' in order to preclude any misapprehension as to the authorship of this division of the Pleurodira. This division has been adopted in the article "Tortoise" of the 'Encyclopædia Britannica,' which bears the signature A. C. G. usually affixed by the publishers to my articles, but which, in fact, is the joint production of Mr. Boulenger and myself. More especially he supplied me in manuscript with the systematic synopsis as inserted in the article.—A. Günther.]